**UNITED STATES OF AMERICA**
**BEFORE THE**
**FEDERAL ENERGY REGULATORY COMMISSION**

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| Building for the Future Through Electric Regional Transmission Planning and Cost Allocation and Generator Interconnection | ) | Docket No. RM21-17-000 |

## COMMENTS OF THE ELECTRIC POWER SUPPLY ASSOCIATION

The Electric Power Supply Association ("EPSA")[1] hereby submits these comments in response to the Advanced Notice of Proposed Rulemaking issued by the Federal Energy Regulatory Commission ("FERC" or "Commission") on July 15, 2021,[2] which presents potential reforms to improve the electrical regional transmission planning, cost allocation, and generator interconnection processes. The Commission is considering the need for potential regulatory revisions pursuant to Section 206 of the Federal Power Act ("FPA") in the face of an evolving transformation of the electric grid. As noted in the ANOPR, the Commission's priority is to ensure just and reasonable, non-discriminatory rates while maintaining grid reliability as the generation resource mix changes.

EPSA encourages the Commission to use this proceeding as an opportunity to continue to strengthen and support competitive electricity markets because they offer

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[1] EPSA is the national trade association representing competitive power suppliers in the U.S. EPSA members provide reliable and competitively priced electricity from environmentally responsible facilities using a diverse mix of fuels and technologies. EPSA seeks to bring the benefits of competition to all power customers. This pleading represents the position of EPSA as an organization, but not necessarily the views of any particular member with respect to any issue.

[2] *Building for the Future Through Electric Regional Transmission Planning and cost Allocation and Generator Interconnection*, Advanced Notice of Proposed Rulemaking, 176 FERC ¶ 61.024, (issued July 15, 2021) ("ANOPR").

the best way to achieve reliable, affordable energy, to spur innovation, and to support decarbonization of the grid. However, to accommodate the evolving grid, reforms will be necessary in the wholesale electricity markets, including transmission policies and processes. The ANOPR lays out the full spectrum of processes that address transmission system issues with an eye to the changing resource mix. As the system evolves, FERC must ensure that this occurs in an operationally sound manner based on realistic timelines and cost impacts in order to protect the reliability of the system at every point along this transition.

In these initial comments, EPSA sets out high level priorities for this assessment, highlighting considerations that must be included in the effort. With so many options on the table for discussion, EPSA reserves the right to comment in more detail in reply comments on specific reforms subsequent to input from stakeholders which may identify preferred proposals, highlight more likely reform approaches, or identify needed changes to existing policies or principles.

## I. COMMENTS

As is evident in nearly all of the current policy proceedings underway at the Commission,[3] there is an array of issues pressuring the need to look at market reforms, including transmission planning, cost allocation, and interconnection rules as outlined in the instant proceeding. The resource mix is evolving at varying rates across the country in light of technology advances and clean energy policies. Additionally, extreme weather

[3] *Electrification and the Grid of the Future*, Docket AD21-12-000, "Notice of Technical Conference," (March 2, 2021);

*Modernizing Electricity Market Design,* Docket AD21-10-000, convened in "Notice of Technical Conference on Resource Adequacy in the Evolving Electricity Sector," (February 18, 2021), multiple related technical conferences held to date;

*Climate Change, Extreme Weather, and Electric System Reliability,* Docket AD21-13-000, "Notice of Technical Conference," (March 5, 2021).

events are occurring more often and for longer durations to varying degrees as well. These events change the reliability of the system in the short- and longer-term and raise concerns over how a resource mix with greater intermittency can meet those increasing reliability challenges. In order to ensure that customers have access to reliable, competitive power supplies, a robust open access transmission system and sufficient flexible generation are necessary. As may be demonstrated in this proceeding, this could include the development of additional major high-voltage transmission lines and strategically located flexible generation to strengthen the nation's electric system and enable the deployment of new diverse power supply resources including those that may be located far from load centers.

It is critical, however, that any reforms to transmission policies leverage the Commission's commitment to *competition* to ensure that *cost-effective* transmission investments are signaled and supported by planning, cost allocation, and/or interconnection processes, including the use of competitive procurement processes. FERC's previous landmark orders on transmission issues under its authority have been successful by ensuring that non-discriminatory open access transmission service supports and promotes competitive power markets. While there may be reason to consider reforms to address new factors, those fundamental goal posts must remain. Competitive wholesale markets are the best tool to achieve decarbonization, reliability, and affordability.[4] Thus, an open access transmission system financed, built, and

[4] "The Value of Markets," PJM Interconnection LLC, (April 2020). *See also:*
"Scalable Markets for the Energy Transition: A Blueprint for Wholesale Electricity Market Reform," Energy + Environmental Economics, Inc. ("E3"), (May 2021): "Wholesale electricity markets have played an important role in facilitating carbon reductions to date. They have done this by: 1) leveraging the benefits of scale and diversity across broad geographic areas to facilitate the integration of large amounts

utilized on a fair and equitable basis which supports those markets keeps the nation on the right track.

In order to address evolving resource opportunities including clean energy resources, the ANOPR proposes an extensive list of possible changes to increase transmission investment guided largely by two proposed paradigm shifts in transmission planning and cost allocation – anticipating future generation needs and socializing costs. EPSA submits that the primary benefit of transmission expansion often has been the provision of new sources of energy to loads located elsewhere; this is truer now than ever, because the type of transmission expansion the ANOPR seems to have in mind primarily is about accommodating an influx of new sources of particularly remote, emissions-free energy onto the system to support distant loads. The business model that has emerged to support these sources of renewable energy largely is built around long-term power purchase agreements: some multi-decadal, some shorter than a decade, but not the year-to-year business model of a merchant generator. Those

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of wind and solar generation; 2) reducing carbon emissions through more efficient generator dispatch; and 3) hastening the retirement of older, less efficient and more polluting resources by exposing them to the forces of competition," p. 12.;

*Letter on Organized Wholesale Power Markets to FERC Chairman and Commissioners from Nine Bipartisan Former FERC Chairs and Commissioners*, Signed by Nora Mead Brownell, James J. Hoecker, William L. Massey, Elizabeth Anne Moler, John R. Norris, Robert F. Powelson, Branko Terzic, Jon Wellinghoff, Pat Wood III, (June 2021); "As former FERC Commissioners and Chairs, appointed by both Republican and Democratic Presidents over the past three decades, we are united in our strongly held view that organized regional wholesale power markets, known as RTOs and ISOs, provide compelling platforms for renewable energy development and are achieving considerable consumer benefit….These market platforms have been proven to attract substantial clean energy investment and will be the key to implementing needed climate solutions and achieving the goal of clean, reliable and affordable electricity for our entire nation.";

"Competitive Energy Markets, Not Monopoly, Delivers Affordable, Reliable, And Low-Emission Energy," Wayne Winegarden, Forbes Magazine, (June 7, 2021).

*See generally* the Eastern ISO/RTO State of the Market reports which all identify wholesale prices at historic lows: "2020 Annual Markets Report," ISO New England Inc.- Internal Market Monitor, (June 9, 2021); "2020 State of the Market Report for the New York ISO Markets," Potomac Economics, Market Monitoring Unit for the New York ISO, (May 2021); "State of the Market for PJM: 2020," Monitoring Analytics, LLC, (March 11, 2021).

renewable PPAs can and should include the cost of transmission to interconnect those resources. Indeed, major renewable projects under development already contemplate this very approach. Rather than broadly socializing the costs of transmission, the Commission should focus on reducing transaction costs, speeding up lagging processes, and adopt market-based approaches, like an open season, to ensure subscription. The amount of capital invested in or ready to be invested in the renewables sector is enormous, surpassing the spending of any other energy sector.[5] The Commission should not infantilize that industry by treating it as incapable of tolerating and problem-solving around development risk, lag, and upfront cost associated with transmission. Indeed, the Commission rightly expects the very same thing of developers and shippers on new gas pipelines – an industry that, as the Commission knows, faces perhaps even more profound development risks, and nevertheless attracts capital and shippers willing to subscribe and fund new projects.

At a high level, policies that incent and support merchant development of transmission and network upgrades avoid many of the concerns raised by reforms outlined in the ANOPR. As EPSA member companies do for generation, the assumption of risks by developers rather than customers yields an array of benefits and disciplines that lead to the most appropriate and economical projects being built.

In order to prioritize issues raised in the ANOPR, EPSA supports the following:

a. Reforms to the existing Interconnection Queue processes are needed to ensure that projects in development are able to move through that process in a predictable, timely manner. This is not occurring in numerous markets

[5] *See e.g.,* "Carbonomics: The Green Engine of Economic Recovery," Goldman Sachs Equity Research, (June 16. 2020), "Renewable power will become the largest area of spending in the energy industry in 2021, on our estimates, surpassing upstream oil & gas for the first time in history, driven by bifurcating cost of capital (up to 20% for long-term oil projects, down to 3-5% for renewables)."

and requires attention and guidance from FERC. It is likely, however, that reforms may vary by region.

b. Longer-term regional transmission planning is warranted and should be considered. However, there are concerns with whether or how specific plans can account for anticipated future generation in a measurable, transparent manner that signals the transmission which is demonstrably needed. Plans that result in the identification of a zone of potentially low-cost energy supplies (or where generators requesting interconnection indicate such a zone) that would result in lower system costs should lead to an open season process to match customers with transmission capacity. Additionally, while generator interconnection and regional planning processes may be better coordinated, this could be a challenge should the planning process be reformed to assess a longer forward period.

c. While cost allocation may require consideration for revisions, a full reassessment or reversal of participant funding and cost causation principles in order to socialize costs may overstate identified benefits and warp the signals needed to support baseline transmission upgrades, even public policy projects. While additional infrastructure is needed, no consumer should carry the extensive costs of very expensive overbuild in anticipation of resources which do not materialize or reach commercial operation.

d. All reforms considered in this rulemaking proceeding must balance the interests of new market participants and technologies with impacts to the existing system, incumbent market participants, and the wholesale ISO/RTO electricity markets.

## A. Planning, Building, and Paying for Anticipated Future Needs

In order to address rapid technological advances and environmental policies being enacted in states across the country, the Commission proposes changes to allow for comprehensive forecasts of future transmission needs in order to support anticipated future generation including resources not yet in development. The ANOPR explains that this is needed in order to address the difference in lead time and development of transmission projects and generation resources, which leaves new resources to rely on the generator interconnection process for the construction (and costs) of large, high-

voltage transmission facilities needed to join the system. This is deemed an inefficient and costly way to meet the needs of the changing resource mix in the ANOPR.

While forward-looking modeling and forecasting is necessary to support the growth of the electric system, and may require extension of the forward planning period, there are concerns with proposals that would build for projects not even under development yet. As we know, even projects currently in the interconnection queue – i.e., which have gone through certain steps and milestones of project development and investment – often are not developed. Across five ISOs, for example, only 24% of projects in the interconnection queue from 2000-2015 reached commercial operations – while the past few years seem to demonstrate lower rates of commercial operations, this general average spanned 2000-2010 as well.[6] The problem with planning transmission to support this level of speculative generation planning is how expensive any wrong guesses will be – a problem only obscured but not resolved if the Commission finds a way, or multiple ways, to socialize the costs over the greatest number of "beneficiaries."

Additionally, it is vague and unclear how or what anticipated future goals could be clearly identified to support extensive, costly transmission investments (noting that even with investment in place, projects are often stopped siting and permitting problems). This is no meager concern as the cost and complexity to finance, permit, and site transmission lines built on spec are vast and are unlikely to be undertaken without some assurance of guaranteed financial recovery. Further, a primary aim of the Commission is to support long-line high-voltage interstate transmission lines to enable

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[6] Joseph Rand et al., Lawrence Berkeley National Lab, *Queued Up: Characteristics of Power Plants Seeking Transmission Interconnection as of the End of 2020,* (May 2021), slide 3.

*anticipated* generation resources or to accommodate state policies which call for the addition of new renewable resources. It needs to be noted that developers will respond to these needs, policies, or state mandates. However, without meaningful financial commitments to identify "real" interconnection customers,[7] allocating the costs to the consumers in states which may be traversed by a high-voltage long transmission line but will neither host any of the new facilities nor will be served by the power delivered is not just and reasonable. Rather, there must be a way to prioritize projects in development with the likelihood and ability to go into service. Currently there are projects like this in interconnection queues bogged down by an overwhelming wave of speculative projects or regulatory impediments keeping them from crossing the finishing line. The cost and timing uncertainties plaguing this process need to be solved before we move on to a process to facilitate a high number of speculative projects not even yet on a developer's drawing board.

**a. Consideration of Open Season Process**

A way to accommodate the transmission and interconnection needs of multiple projects may be better met by looking to merchant transmission development and natural gas pipeline projects. System planners could hold an open season competitive procurement to solicit bids from suppliers, developers, customers, or even states which could support the build of long-line transmission facilities or network upgrades. Rather than using a model like CREZ in Texas which socializes the costs to build transmission

[7] Concerns regarding major transmission development in order to serve speculative customers echoes concerns raised regarding demonstrating market need for new pipeline projects or expansions that are supported by precedent agreements with future customers or contracts with pipeline marketing affiliates. *See e.g.*, "Interstate Natural Gas Pipeline Siting: FERC Policy and Issues for Congress," Congressional Research Service, CRS Report R45239, (Updated May 27, 2021), pp. 10-11.

first to incent an influx of hopeful supply, an open season brings the interconnection customers to the table to demonstrate that transmission development would be prudently located and supported by sufficient commercial interest.[8]

This approach may work especially well in place of the "geographic development zones" referenced in the ANOPR[9] – in other words, areas that may be considered to have the potential for the development of large amounts of renewable generation. If this is the case, there should be sufficient interest for developers to sign onto a proposed transmission project as anchor shippers. This process could take place on an as-needed basis but could also be interrelated with the regional planning and cost allocation processes within the region. Longer-term scenario planning could also be coordinated with an open season process. Importantly, this approach does not rely on forecasting – which is rarely sufficiently accurate, if accurate at all – but could allow states or local entities to sign on to a project to signal a future need to fulfill state policies or goals. Additionally, as the Commission's experience in economic regulation demonstrates, matching sellers with buyers is demonstrably the best way to ensure that a proposed project is needed and cost justified.[10] Major current transmission projects demonstrate that shippers will support needed projects – it is a threshold observation that it is siting or permitting issues which stymie or stall many major transmission

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8 *2021 Corporate Renewables Outlook*, S&P Global Market Intelligence, (April 21, 2021), "In the U.S. specifically, over 41,000 MW of corporate PPA capacity [for renewables] has been contracted for in 38 states." p. 2.

9 ANOPR, PP 54-57.

10 Jeff Makholm, *The Political Economy of Pipelines: A Century of Comparative Institutional Development*, (Chicago: University of Chicago Press, 2012).

projects. Developers are willing to finance transmission lines of every size to bring supply to customers.[11]

Notably, an open season subscription approach could also be used to identify commercial interest in multiple interconnection projects impacting the same electrical area. This could allow for the development of large-scale network upgrades funded by multiple subscribing interconnection customers which would ensure the costs and risks of the upgrade are born by interconnecting generators rather than customers, could advance the interconnection queue process, and can inform the planning process regarding the location and interest in additional generation resources.

### B. Cost Allocation Should Not Veer from Participant Funding or Beneficiary Pays Principles

EPSA agrees that transmission additions, upgrades, and investments offer system benefits and can benefit generation developers that may come next after the resource which pays for them due to the "lumpiness" in increased transfer capability – just as the existing system paid for through Participant Funding methodologies by incumbent generators offers benefits via "headroom" (excess MW transfer capability) to newly interconnected resources which have come after them. Perhaps future headroom usage could be accounted for and reimbursed to the original participant funder as a step towards improving the Participant Funding structure for generation interconnection. However, to upend the current Participant Funding and cost causation principles utilized

[11] See e.g., Champlain Hudson Power Express project; Clean Path New York project, *During Climate Week, Governor Hochul Announces Major Green Energy Infrastructure Projects to Power New York City with Wind, Solar and Hydropower from Upstate New York and Canada*, (News release issued September 20, 2021), https://www.governor.ny.gov.

Russell Gold, *Superpower: One Man's Quest to Transform American Energy*, (Simon & Schuster, June 25, 2019),

for decades will result in vast inequities among resources on the system providing power now and in future years which could require some recompense or equity provisions to those who have incurred those expenses to date, for instance. Additionally, the cost of deliverability is a necessary input to the cost of generation and is important to the price discipline of new projects competing to come online. These costs also offer important signals regarding the location of new generation resources, which may be important for localities that require the services provided by resources located within their Balancing Area such as voltage support and reactive power. Note that these cost causation principles help ensure the most efficient resource mix to supply load as noted by consumer organizations.[12]

Competitive power generation developers have invested billions of dollars in new generation facilities in the ISO/RTO markets.[13] Socializing the costs of transmission or network upgrades, or identifying "investment zones," largely guts the decision-making process that seasoned developers use to identify investments in a particular location and in the most cost-effective manner. Identifying zones for investment purposes, supported by subsidized transmission infrastructure, may bring an array of speculative developers to take advantage of these socialized facilities. Meanwhile, companies with access to reliable financing based on strong balance sheets, building practices, and

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[12] Joint comments of Consumer Organizations, Docket RM21-17-000 (instant proceeding), (October 12, 2021), p. 1: "It is not unrealistic to foresee that the cost of transmission will eclipse the cost of generation in just a few short years, especially when costs that rightly belong on the generation side, such as interconnection costs, are shifted to transmission in order to make the cost of new generation appear cheaper."

[13] *See for example*, "2020 PJM Generation Capacity and Funding Sources: 2007/2008 through 2021/2022 Delivery Years," Monitoring Analytics, Independent Market Monitor for PJM, (September 15, 2020); p. 1: "In summary, of the 41,979.4 MW of generation capacity additions from new resources, reactivations, and uprates to existing generation capacity resources for the 2007/2008 through 2019/2020 Delivery Years, 32,333.9 MW (77.0 percent) were based on market funding and 9,645.5 MW (23.0 percent) were based on nonmarket funding."

operating experience who are building much of the innovative and cleaner new resources today[14] may find that these investments have been artificially promoted. Quite simply, socializing the costs of the transmission system is not the way to incent extensive new generation development. Rather, a transparent, fair process which awards developers the needed transmission reservations and services in exchange for funding will continue to support investment in network and transmission facilities.

### C. Paradigm Shifts Designed to Incent Transmission Must Be Balanced with Maintaining Robust Competitive Power Markets and Existing System Benefits

As outlined in the ANOPR, the change to the current cost allocation paradigm would be accomplished largely by expanding the view of what constitutes benefits and the beneficiaries of transmission projects. While improvements to regional planning and interconnection processes are needed to support transmission development and rational network upgrades, the extent of the reforms promulgated in the ANOPR – and the very ambitious goals they are intended to achieve – represent an expectation for massive investment and buildout of the high-voltage transmission system in order to

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[14] *E.G.,* Vistra Corp, *Vistra Completes Expansion of Battery Energy Storage System at its Flagship California Facility*, (August 19, 2021), Available at: https://investor.vistracorp.com/2021-08-19-Vistra-Completes-Expansion-of-Battery-Energy-Storage-System-at-its-Flagship-California-Facility.;
CPV Media Center, *CPV to Proceed with the Construction of 100-MW Maple Hill Solar Facility*, (May 24, 2021), Available at: https://www.cpv.com/news/2021/05/cpv-to-proceed-with-the-construction-of-100mw-maple-hill-solar-facility/.;
LS Power Media Center, *LS Power Energizes Largest Battery Storage Project in the World, The 250 MW Gateway Project in California*, (August 19, 2020), Available at: https://www.lspower.com/ls-power-energizes-largest-battery-storage-project-in-the-world-the-250-mw-gateway-project-in-california-2/
See also, for example, corporate renewable development strategies: Competitive Power Ventures, https://www.cpv.com/our-projects/cpv-backbone-solar/; Tenaska Solar Ventures, https://www.tenaska.com/our-business/strategic-development-acquisitions/tenaska-solar-ventures/; NRG, https://www.nrg.com/generation/renewables.html; Vistra, https://www.prnewswire.com/news-releases/vistra-accelerates-pivot-to-invest-in-clean-energy-and-combat-climate-change-301139377.html; Lightsource BP, https://www.theguardian.com/business/2021/jun/01/bp-re-enters-us-market-buying-up-string-of-solar-farms-for-155m; Shell Energy, https://www.shell.com/energy-and-innovation/new-energies.html

offer opportunities for as-yet imagined resources. This colossal effort may reasonably create trepidation among the extensive incumbent resources which operate and serve consumers now and will do so for years and in many cases decades to come. Impacts to incumbent resources – those which financed the interconnections, network upgrades, and transmission lines serving customers today – must be considered when assessing the fairness, equity, legality, and usefulness of any proposed reforms. It is important that any reforms considered address not only decarbonization, but also – and most critically – maintaining a reliable, affordable system as it transitions to meet future goals. While this transition takes place, the reliability ensured by a certain amount of callable and flexibly dispatched resources as supported by the current system must be maintained and, in fact, enhanced. As developers of new resources and technologies, it is of little value to interconnect to a system that is not functioning at the highest level of reliability.

Additionally, the Commission must balance any transmission process reforms with possible adverse consequences to the wholesale energy markets – it is absolutely critical that the well-functioning competitive power markets continue to attract and retain needed investments in resources and operations. This requires careful consideration of how to reform transmission planning and cost allocation processes, but also the timing for such changes and the demonstration of need and support for the underlying goals of such extensive, costly reforms. Not all states are moving forward in lockstep regarding how to reach decarbonization goals and therefore should not be forced to shoulder exorbitant costs based on the goals or mandates of its neighbors, far or near.

Finally, there can be damaging market impacts from extensive transmission projects supported by socialized costs across a broad set of states and their customers.

These projects may facilitate the development of so much installed capacity of zero marginal cost resources that, when dispatched at zero or negative prices, suppress prices for all other operating resources.[15] While the system and resource mix is evolving, much of the existing system – particularly flexible, dispatchable generation – remains needed to ensure the reliable operation of the grid.

## II. CONCLUSION

**WHEREFORE,** EPSA respectfully requests that the Commission consider the comments submitted herein in evaluating and prioritizing next steps in this proceeding.

Respectfully submitted,

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[15] William W. Hogan, Susan L. Pope, *Priorities for the Evolution of an Energy-Only Electricity Market Design in ERCOT,* FTI Consulting, (May 2017), pp. 25-26.